

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
WASHINGTON, D.C. 20555

August 14, 1979

IE Circular No. 79-17

CONTACT PROBLEM IN SB-12 SWITCHES ON GENERAL ELECTRIC METALCLAD CIRCUIT  
BREAKERS

The General Electric Company, Switchgear Department in Philadelphia, reported to the NRC on July 3, 1979, an intermittent contact problem in SB-12 switches. This intermittent contact problem will cause a lack of continuity through the "a" contact of the switch that is used to energize the trip coil of the circuit breaker. Investigation disclosed that a die used to form a hole in the contact arms of the switch had worn, resulting in elongated holes. This condition could permit the contact bridge member to move laterally relative to the contact arm, occasionally resulting in improper "a" contact wipe. The worn die has been corrected, and all switches shipped on or after July 1, 1979, include this correction. A review of the history of these components indicates that switches shipped in the time period of August 1, 1978 to July 1, 1979, could have this problem. The trip coil and auxiliary switch portion of the trip circuit is monitored for continuity by a red light on the front door of the switchgear. This light is lit when the breaker is closed and the control circuits are energized. If the red light is lit, this indicates that the "a" contacts of the switch are closed, and that a trip signal will trip the breaker.

Based on the above, the licensees are advised to do the following:

1. Insure that all General Electric Company Metalclad Circuit Breakers shipped to your facilities during the period from August 1, 1978 to July 1, 1979 and used in or affecting the operation of safety related equipment are furnished with new SB-12 control switches as promptly as possible.
2. Pending replacement of SB-12 control switches administrative controls should be initiated to assure the red light which demonstrates contact continuity, is lit and remains lit each time these circuit breakers are closed.

No written response to this circular is required. If you require additional information regarding this subject, contact the Director of the appropriate NRC Regional Office.

LISTING OF IE CIRCULARS ISSUED IN  
LAST SIX MONTHS

Circular No.	Subject	Date of Issue	Issued to
79-03	Inadequate Guard Training- Qualification and Falsified Training Records	2/23/79	All Holders of and applicants for Special Nuclear Material Licenses in Safeguards Group I
79-04	Loose Locking Nut On Limitorque Valve Operators	3/16/79	All Holders of Reactor OLs or CPs
79-05	Moisture Leakage In Stranded Wire Conductors	3/20/79	All Holders of Reactor OLs or CPs
79-06	Failure to Use Syringe and Battle Shields in Nuclear Medicine	4/19/79	All Holders of Medical Licensees except teletherapy licensees
79-07	Unexpected Speed Increase of Reactor Recirculation MG Set Resulted in Reactor Power Increase	5/2/79	All Holders of BWR OL's or CP's
79-08	Attempted Extortion - Low Enriched Uranium	5/18/79	All Fuel Facilities Licensed by NRC
79-09	Occurrences of Split or Punctured Regulator Diaphragms In Certain Self Contained Breathing Apparatus	6/22/79	All Materials Priority I, Fuel Cycle and Operating Reactor Licensees
79-10	Pipefittings Manufactured from Unacceptable Material	6/26/79	All Power Reactor Licensees with a CP and/or OL
79-11	Design/Construction Interface Problem	6/27/79	All Applicants for, and Holders of Power Reactor CPs

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LAST SIX MONTHS

Circular No.	Subject	Date of Issued	Issued to
79-12	Potential Diesel Generator Turbocharger Problem	6/28/79	All Power Reactors Operating Facilities and all Utilities having a CP
79-13	Replacement of Diesel Fire Pump Starting Contactors	7/10/79	All Power Reactor Operating Facilities and all Utilities having a CP
79-14	Unauthorized Procurement and Distribution of XE-133	7/13/79	All Medical Licensees except Teletherapy Medical Licensees and to all Radiopharmaceutical Suppliers
79-15	Bursting of High Pressure Hose and Malfunction of Relief Valve "O" Ring in Certain Self-Contained Breathing Apparatus	8/8/79	All Materials Priority I, Fuel Cycle and Operating Power Reactor Licensees
79-16	Excessive Radiation Exposures To Members Of The General Public And A Radiographer	8/16/79	All Radiography Licensees